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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,510	05/14/2007	Ichiro Kawabuchi	30761-4	1074
21130 7590 02/25/2010 BENESCH, FRIEDLANDER, COPLAN & ARONOFF LLP ATTN: IP DEPARTMENT DOCKET CLERK 200 PUBLIC SQUARE SUITE 2300 CLEVELAND, OH 44114-2378				
EXAMINER RO, BENTSU				
ART UNIT 2837		PAPER NUMBER		
NOTIFICATION DATE 02/25/2010		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patent@beneschlaw.com

### Office Action Summary

**Application No.**

10/599,510

**Applicant(s)**

KAWABUCHI ET AL.

**Examiner**

BENTSU RO

**Art Unit**

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 December 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 4 and 11 is/are rejected.
- 7) ☒ Claim(s) 5-10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Applicant's Amendment***

1. In response to the office action of 7/14/2009, applicant has submitted a new abstract and amended the claims on 12/14/2009. The new abstract is acceptable. In the claims, applicant has canceled claims 2 and 12 and incorporated the limitation of claim 2 into claim 1.

### ***The Change in This Office Action***

2. The examiner has carefully reviewed the previous office action, the prior art teaching (Kameda et al USPN 7,059,645), the amended claims, and most importantly, applicant's remarks. Despite applicant's allegation, the examiner strongly believes that claim 2 is not allowable. Therefore, incorporating claim 2 into claim 1 does not make claim 1 allowable.

In an updated search, the examiner has found that claim 11 should not be objected to as an allowable dependent claim. Because applicant did not rewrite claim 11 into an independent form, the objection of allowability of claim 11 becomes moot. Claim 11 is now rejected under 35 USC 103(a) as obvious in view of secondary reference teachings.

### ***Claim Rejections - 35 USC § 102***

3. Claims 1, 3, 4 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Kameda et al USPN 7,059,645 (same reference as the first office action).

For these claims, the examiner maintains the same rejection as that of the first office action; dated 7/14/2009, paragraph 3. Applicant is referred to the first office action for the details.

The examiner must delve the limitation of claim 2 from the Kameda's teaching. Claim 2 is now incorporated into claim 1 at the very bottom of claim 1. Kameda does teach the very bottom limitation of claim 1 because of the following reasons:

(1). Claim 1, the bottom sub-paragraph sets forth the limitation of "the first finger mechanism (the thumb) is fully facing the other finger mechanisms". Kameda's abstract line 9 through the end states that:

A variety of operations, including **gripping, picking, and throwing**, can be performed rapidly and reliably by controlling relative positions of the three articulated finger units and controlling bending operations of the articulated finger units. (Emphasis added.)

(2). Kameda column 1, lines 33-39 states that

It would be convenient in this case if the one finger positioned **opposite** the four fingers were configured so as to be capable of turning along the palm because operations such as gripping objects could be performed in a greater variety of patterns due to the fact that the relative position of the one finger would be freely variable with respect to the four fingers. (Emphasis added.)

Based on the above-cited statements, Kameda does teach the limitation of claim 1, last sub-paragraph. Additionally, Kameda further shows in the drawings:

(3). Fig. 7 shows a bevel gear 111 allowing the finger to rotate at any desired direction, such as facing other fingers.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kameda et al in view of any one of the following USPN teachings:

- Asada et al 6,236,037;
- Gross 6,606,540.

Claim 11 is claiming a pressure sensor for measuring the contact pressure at the distal phalange section of a finger. Kameda does not show this feature. However, having a contact pressure sensor at the distal phalange section of a finger is either inherent to the Kameda's palm mechanism or obvious in view of the secondary references cited above. The examiner believes that all fingers for gripping must have a pressure sensor (or the like) so that the gripping force can be controlled.

***Allowable Subject Matter***

6. Claims 5-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

Applicant's arguments have been fully considered but they are not convincing because for gripping, the center line of the thumb must facing other fingers or otherwise the gripping mechanism would not be possible. More specifically, Kameda column 1, lines 33-34 states that *"it would be convenient in this case if the one finger positioned opposite the four fingers..."* wherein the words "positioned opposite" clearly requires that the center of the thrum mechanism fully facing the other finger mechanisms.

### ***Action Made Final***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENTSU RO whose telephone number is (571)272-2072. The examiner can normally be reached on 9/5/4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Benson can be reached on 571-272-2227. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BENTSU RO/  
Primary Examiner, Art Unit 2837